

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	: Appl. Ref.:	EPI-067191
Nyce et al.	: Atty Ref.:	73999/01905
Appl. No:	: Priority:	US 60/127,958
Filing Date:	:	

jc584 U.S. PTO  
09/543679

For: **LOW ADENOSINE ANTI-SENSE OLIGONUCLEOTIDE, COMPOSITIONS,  
KIT & METHOD FOR TREATMENT OF AIRWAY DISORDERS  
ASSOCIATED WITH BRONCHOCONTRICITION, LUNCH  
INFLAMMATION, ALLERGY(IES) & SURFACTANT DEPLETION**

**INFORMATION DISCLOSURE STATEMENT**

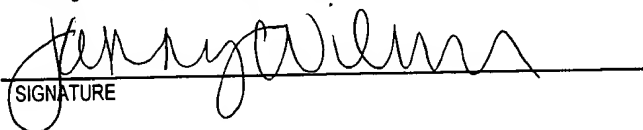
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir\Madam:

In compliance with the duty of disclosure under 37 CFR §§ 1.56, 1.97 and 1.98, and in accordance with the provisions in the Manual of Patent Examining Procedure §§ 609 and 707.05(b), enclosed is Form PTO-1449 listing the references that are known to applicant. Copies of the cited references are of record in the parent and grandparent cases, of which filing date priority is claimed in this application.

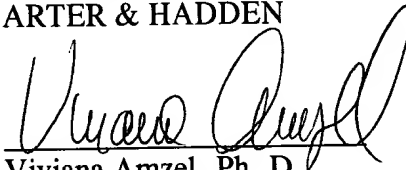
It is respectfully requested that the listed references be considered in the examination of this application and identified on the list of references cited on the patenting issuing for this application. Applicant also requests that an initialed copy of FORM PTO-1449 be entered in the application file and returned to applicant with the next communication from the Office in accordance with MPEP §§ 609.

I hereby certify that this correspondence is being deposited with the United States Postal Service in an Express Mail Envelope having Express Mail No. **EJ206757301US** addressed to the Assistant Commissioner for Patents, Washington D C 20231 on March 17, 2000, by Jenny Wilson.

  
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The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 and 1.17 which may be required by this paper to Deposit Account No. 01-2520. Please show our reference number with any charge or credit to our Deposit Account.

Respectfully submitted.  
ARTER & HADDEN



Viviana Amzel, Ph. D.

Reg. No. 30,930  
Attorney for Applicant(s)

Dated: April 4, 2000

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Substitute for form 1449A/PTO

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**Complete if Known**

<b>Application Number</b>	Not yet assigned
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<b>Filing Date</b>	herewith
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First Named Inventor	Jonathan W. Nyce
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Group Art Unit	not yet assigned
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Examiner Name	not yet assigned
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Attorney Docket Number	EPI-067191
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## **Complete if Known**

Application Number	Not yet assigned
Filing Date	herewith
First Named Inventor	Jonathan W. Nyce
Group Art Unit	not yet assigned
Examiner Name	not yet assigned
Attorney Docket Number	EPI-067191

## **OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Stull, R.A. et al., "Predicting antisense oligonucleotide inhibitory efficacy: a computational approach using histograms and thermodynamic indices", <i>Nucleic Acids Research</i> , 20(13): 3501-3508 (1992).	
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		Akhtar, S. et al., "In vivo studies with antisense oligonucleotides", <i>Trends in Pharmacological Sciences, Current Techniques</i> , 18:12-18, (1997).	
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		Nyce, J.W., "Respirable antisense oligonucleotides as novel therapeutic agents for asthma and other pulmonary diseases", <i>Exp. Opin. Invest. Drugs</i> 6(9): 1149-1156 (1997).	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Application Number	Not yet assigned
Filing Date	herewith
First Named Inventor	Jonathan W. Nvce
Group Art Unit	not yet assigned
Examiner Name	not yet assigned
Attorney Docket Number	EPI-067191

## **OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.

T<sup>2</sup>

Simpson, R. U. et al, "Antisense oligonucleotide targeting against protein kinase C beta and C beta II block 1,25 -(OH)- 2D3- induced differentiation", J. Biol. Chem. 273(31):19587-19591 (1998).

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Miller et al. "Gene Transfer and Antisense Nucleic Acid Techniques," Parasitology Today, Vol. 10, No. 3: 92-97.

Stull et al. "Antigene, Ribozyme and Aptamer Nucleic Acid Drugs: Progress and Prospects," Pharmaceutical Research, Vol. 12, No. 4: 465-483.

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	Not yet assigned
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		First Named Inventor	Jonathan W. Nvce
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Sheet	4	of	4

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		J. MILLIGAN et al.; <i>Current Concepts in Antisense Drug Design</i> . <u>J. Med. Chem.</u> 36(14): 1923-1937 (1993).	
		S. ALI et al.; <i>Adenosine-induced bronchoconstriction in an allergic rabbit model: antagonism by theophylline aerosol</i> . <u>Agents Actions</u> 37:165-167 (1992).	
		S. ALI et al.; <i>Modification of allergen-induced airway obstruction and bronchial hyperresponsiveness in the allergic rabbit by theophylline aerosol</i> . <u>Agents Actions</u> 37:168-170 (1992).	
		S. ALI et al.; <i>Adenosine-Induced Bronchoconstriction and Contraction of Airway Smooth Muscle from Allergic Rabbits with Late-Phase Airway Obstruction: Evidence for an Inducible Adenosine A<sub>1</sub> Receptor</i> . <u>J. Pharmacol. Exp. Therapeu.</u> 268:1328-1334 (1994).	
		S. ALI et al.; <i>Adenosine receptor-mediated bronchoconstriction and bronchial hyperresponsiveness in allergic rabbit model</i> . <u>Am. J. Physiol.</u> 266:L271-277 (1994).	
		D.R. SIBLEY, et al; <i>Transfected Mammalian Cell Lines Expressing the A1 Adenosine Receptor</i> NTIS Field/Group Codes: 57F, 57B, 57Q 90D (5 June 1991).	
		Dennis J. U., et al, "Human melanoma metastases is inhibited following ex vivo treatment with an antisense oligonucleotide to protein kinase C alpha", <u>Cancer Lett.</u> 128(1): 65-70 (1998).	
		Haeckel C., et al, "Antisense oligonucleotide inhibit urokinase", <u>Int. J. Cancer</u> 77(1): 153-160 (1998).	
		Kobayashi S. et al, "Transcription factor NF-E2 is essential for the polyploidization of Meg-J", <u>Biochem. Biophys. Res. Commun.</u> 247(1): 65-69 (1998).	

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